

In the specification:

Please replace the following portions of the specification:

On pages 11, line 13 through the end of page 12:

FIG. 1 a longitudinal section through an arrangement (bioreactor block) of bioreactors;

FIG. 2A ~~a various~~ variants of the arrangement of baffles and agitation systems in a bioreactor;

FIG. 2B a variant of the arrangement of baffles and agitation systems in a bioreactor;

FIG. 2C a variant of the arrangement of baffles and agitation systems in a bioreactor;

FIG. 2D a variant of the arrangement of baffles and agitation systems in a bioreactor;

FIG. 3A is a cross-sectional view of FIG. 3B along line 3A-3A and is the arrangement of a
agitation system according to the invention and baffles in a bioreactor;

FIG. 3B is the arrangement of a agitation system according to the invention and baffles in a
bioreactor;

FIGS. 4A is a cross-sectional view of FIG. 4B along line 4A-4A;

FIG. 4B is a further device according to the invention;

~~FIG. 5A is a cross-sectional view of FIG. 5B along line 5A-5A;~~

FIG. 5B ~~is at~~ 6 further devices according to the invention;

FIG. 6A is a cross-sectional view of FIG. 6B along line 6A-6A;

FIG. 6B is a further device according to the invention;

FIG. 7A is an agitation system according to the invention;

FIG. 7B ~~is a~~ cross-sectional view of FIG. 7A along line 7B-7B;

FIGS. 8A ~~to 13~~ is a cross-sectional view of FIG. 8B along line 8A-8A and is a further
agitation system according to the invention; ~~further agitation systems according to the~~
invention;

FIG. 8B is a view of a further agitation system according to the invention;

FIG. 8C is a cross sectional view of FIG. 8B along line 8C-8C;

FIG. 9A is a further agitation system according to the invention;

FIG. 9B is a cross sectional view of FIG. 9A along line 9B-9B;

FIG. 9C is a bottom view of the further agitation system according to the invention of FIG.
9A;

FIG. 10A is a further agitation system according to the invention;

FIG. 10B is a cross sectional view of FIG. 10A along line 10B-10B;

FIG. 11A is a further agitation system according to the invention;

FIG. 11B is a cross sectional view of FIG. 11A along line 11B-11B;

FIG. 12A is a further agitation system according to the invention;

FIG. 12B is a cross sectional view of FIG. 12A along line 12B-12B;

FIG. 13A is a further agitation system according to the invention;

FIG. 13B is a cross sectional view of FIG. 13A along line 13B-13B;

FIG. 14A is a further arrangement of bioreactors and the structure of the associated closure;

FIG. 14B is a cross sectional view of FIG. 14A along line 14B-14B;

FIG. 15 is the structure of a further closure;

FIG. 16 is a general arrangement with pipetting robot;

FIG. 17 the principle course of a parallel control of a bioreactor arrangement is shown;

FIG. 18 maximum oxygen transfer coefficients for magnetic agitation systems according to the invention of varying types are shown;

FIG. 19 oxygen transfer coefficients for magnetic agitation systems of different types according to the invention;

FIGS. 20 to 22 the results are shown of the cultivation of Escherichia coli in agitation systems according to the invention of a different type;

FIG. 23 is a Table of the agitation systems used for the measurements according to FIGS. 18 to 22;

FIGS. 24 to 26A is a further agitation systems according to the invention;

FIG. 24B is a cross sectional view of FIG. 24A along line 24B-24B;

FIG. 25A is a further agitation system according to the invention;

FIG. 25B is a cross sectional view of FIG. 25A along line 25B-25B;

FIG. 26A is a further agitation system according to the invention;

FIG. 26B is a cross sectional view of FIG. 26A along line 26B-26B;

FIGS. 27A to 28 is a further devices according to the invention;

FIG. 27B is a further device according to the invention;

FIG. 28 is a further device according to the invention;

FIG. 29 shows the maximum oxygen transfer coefficients for an agitation system according to FIG. 25; and

FIG. 30 shows biomass dry concentrations achieved with an agitation system according to FIG. 25.

On page 16, lines 13-15:

FIGS. 2A through 2D shows, ~~in the partial pictures a to d,~~ the use of baffles 20 and agitation systems 21 for generating a pulsating Bernoulli effect. Only the left half of a reaction vessel 9 is thereby illustrated respectively.

On page 19, lines 14-15:

FIGS. 3A and 3B shows ~~in FIG. 3b~~ different views of a mixing vessel 9 in which, on respectively oppositely situated sides, in total four baffles 20a to 20b are disposed.

On page 20, line 6:

FIG. 3a shows a cross-section along the line ~~3A-3A~~ in FIG. 3b through the

On page 20, lines 25-27:

FIGS. 4A and 4B shows an arrangement with a agitation system 21 which is identical to FIGS. 3A and 3B, here however, as can be detected in FIG. 4a, with the section along the line ~~4A-4A~~ in FIG. 4b, the reaction vessel having a rectangular

On page 21, line 10:

FIGS. 5A and 5B shows in turn the same agitation system 21 which is now disposed

On page 21, lines 21-22:

In FIGS. 6A and 6B also, a similar agitation system 21 is used as in the previous Figures. In this case, a cylindrical reaction vessel 9 is present again and a

On page 22, lines 3-7:

FIGS. 7A and 7B shows the simplest form of a agitation system 21 with diagonally outwardly extending borings 33a and 33b. The borings 33a, 33b begin at the underside 29 of the agitation system 21 with an opening 43a, 43b and end at the upper side 28 of the mixer 21 in an opening 44a or 44b. FIG. 7b thereby shows a section along the line ~~7A-7A~~ from FIG. 7a.

On page 22, lines 8-11:

FIGS. 8A -8C likewise shows an agitation system as was already illustrated similarly in FIGS. 3A and 3B. ~~FIG. 8 thereby shows a cross-section,~~ FIG. 8a is a cross-section along the section line ~~8A-8A~~ in FIG. 8b and FIG. 8c a cross-section along the section line ~~8B-8B~~ in FIG. 8b. In contrast to FIGS. 3A and 3B, now there are

On page 22, line 16:

In FIGS. 9A-9C, a further agitation system according to the invention is

On page 23, line 18:

In the case of the agitation system 21 illustrated in FIGS. 10A and 10B, a linear front

On page 23, line 25:

In FIGS. 11A and 11B, an agitation system as in FIGS. 10A and 10B is illustrated, which in

On page 24, lines 3-6:

FIGS. 12A and 12B shows an agitation system as in FIGS. 11A and 11B, now the borings 33a and 33b having a shape which can be detected in plan view in FIG. 12a and is elongated in cross-section.

In FIGS. 13A and 13B, in addition to the borings 33a and 33b as in FIGS. 11A and 11B, further

On page 24, line 13:

FIGS. 14A and 14B shows in partial image a [[a]] reactor device according to the

On page 24, line 23:

FIG. 14b now shows a cross-section along the line 14A-14A in FIG. 14a

On page 32, line 3:

FIGS. 24A to 26B show further embodiments of agitation systems

On page 32, lines 20-30:

This agitation system can be self-centering or also, as illustrated in FIGS. 24A and 24B, can be mounted on a shaft 23 introduced into the reaction vessel. The shaft 23 can thereby be mounted for example on the cover of the reaction vessel. In FIGS. 24A and 24B, the shaft 23 has an enlargement or a flange 50 at its lower end situated in the boring 50 so that the agitation system cannot fall from the shaft 23 since the boring 50 in the upper region narrows continuously into the boring 51. This enlargement 55 can likewise be configured as a key face. The shaft, which now, deviating from the preceding embodiments, protrudes from above into the reaction vessel, and is immersed in the liquid phase, can be configured as solid material as in FIGS. 24A and 24B. Exact positioning of the shaft end relative to the internal

On page 33, line 4:

FIGS. 25A and 25B shows a similar agitation system as in FIGS. 24A and 24B, with the

On page 33, lines 14-20:

FIGS. 26A and 26B shows a corresponding agitation system as in FIGS. 25A and 25B,

however no recesses 56a to 56b being provided and the shaft 23 comprising solid material as in FIGS. 24A and 24B.

FIGS. 27A and 27B shows ~~now in the partial Figures a) and b)~~ both variants of the mounting of the agitation systems with shafts 23 which are immersed from above into the liquid phase 30. The shaft 23 in FIG. 27a is configured as a hollow pipe so that, corresponding to arrows 27A and 27A', a